



FIG. 1 (PG 1 OF 2)

BOVINE RAG2 SEQUENCE

>
>
> 773 ATGTCACT ACAGATGGTA ACAGTCGGAA
>
> 801 ATAGCATAGC CTTAATTCAA CCAGGCTTCT CGTTAATGAA
TTTTGATGGG
>
> 851 CAAGTTTTCT TCTTTGGCCA AAAAGGCTGG CCCAAGAGGT
CTTGCCCCAC
>
> 901 TGGAGTTTTTC CATTTTGAGG TAAAGCATAA TCATCTTAAA
CTGAAGCCTG
>
> 951 CAGTTTTCTC TAAGGATTCC TGCTACCTTC CTCCTCTTCG ATACCGGGC
>
> 1001 CACTTGCACA TTCAGCGGCC AACTTGGAGT CTGAAAAGCA
TCAGTACATC
>
> 1051 ATCCATGGAG GAAAAACACC AAACAATGAG CTTTCAGATA
AGATTIATGT
>
> 1101 GATGTCTGTT GTTCCAAGA ACAACAAAAA AGTTACCTTT
CGCTGCACAG
>
> 1151 AGAAGGACTT GGTAGGAGAC ATTCCTGAAG GCAGATATGG
TCATTCCATT
>
> 1201 GATGTGGTGT ATAGTCGGGG GAAAAGTATG GGTGTTCTCT
TTGGAGGACG
>
> 1251 GTCATACATA CTTTCTGCCC AAAGAACCAC AGAGAAATGG
AACAGTGTAG
>
> 1301 CTGACTGCCT GCCCCATGTC TTCTTGGTGG ATTTTGAATT
TGGGTGCTCT
>
> 1351 ACGTCATACA TTCTTCCAGA ACTTCAAGAT GGACTATCTT
TTCATGTCTC
>
> 1401 CATTGCCAGA AATGATACCG TTTATATTTT AGGAGGCCAT
TCACTTGCCA
>
> 1451 ATAACATCCG CCCTGCCAAT CTGTACAGAA TAAGGGTTGA
TCTCCCCCTG
>

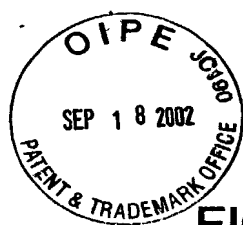


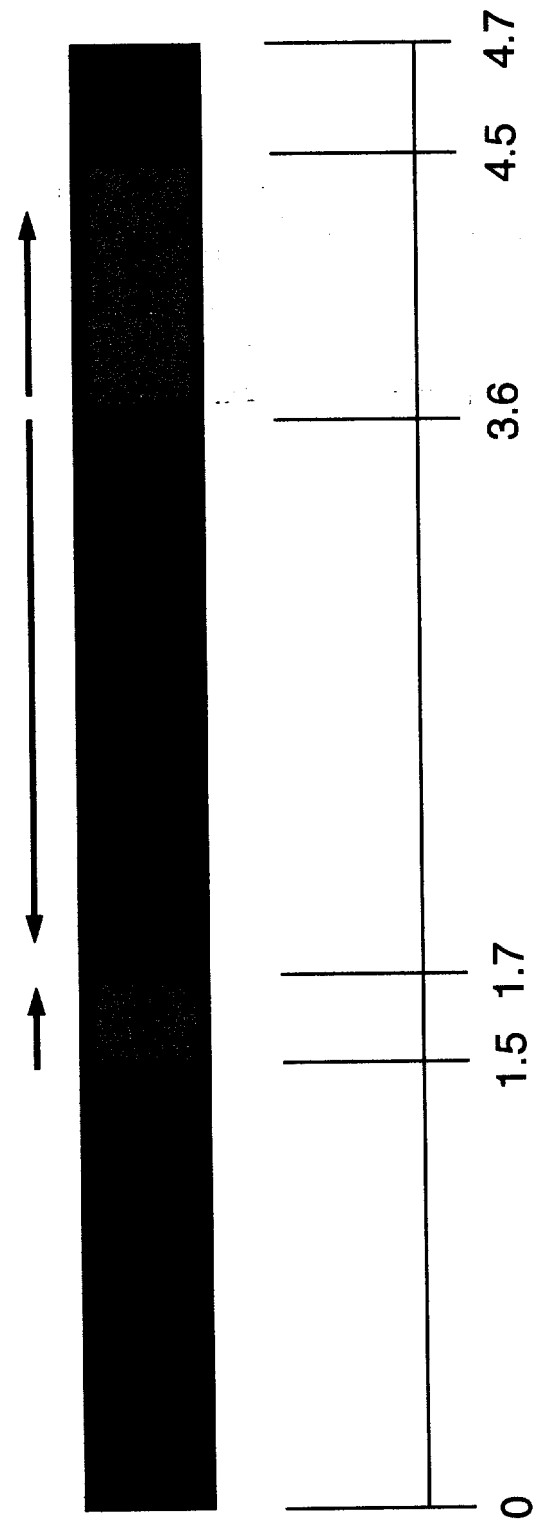
FIG. 1 (PG 2 OF 2)

BOVINE RAG2 SEQUENCE

> 1501 GGTAGCCCAG CTGTGGAGTG CACAGTCTTG CCAGGAGGAA
 TCTCTGTCTC
 >
 > 1551 CAGTGCAATC CTGACTCAAA TAAGCAATGA TGAATTTGTT
 ATTGTTGGTG
 >
 > 1601 GCTATCAGCT TGAAAATCAA AAAAGAATGG TCTGTAACAT
 CATCTCTTTC
 >
 > 1651 AAGTATAACA AGATAGACAT TCTTGAGATG GAAACCCCAG
 ATTGGACCCC
 >
 > 1701 AGATATTAAG CACAGCAAGA TATGGTTTGG AAGCAACATG
 GGAAATGGAA
 >
 > 1751 CTGTTTTCTT CGGCATACCA GGAGACAATA AACAGGCTGT
 TTCAGAAGCA
 >
 > 1801 TTTTACTTCT ATACATTGAA ATGTGCTGAA GACGATGTGA
 ACGAAGATCA
 >
 > 1851 GATAACTTTG ACAAGTAGTC AGACATCAAC AGAAGACCCA
 GGGGACTCCA
 >
 > 1901 CTCCTTTTGA AGACTCAGAA GAATTTTGCT TCAGCGCAGA
 AGCAAACAGT
 >
 > 1951 TTCGATGGTG ATGATGAATT TGACACCTAC AATGAAGATG
 ATGAGGAAGA
 >
 > 2001 TGAGTCTGAG ACAGGCTATT GGATTACATG CTGCCCTACT
 TGTGATGTGG
 >
 > 2051 ATATCAATAC GTGGGTACCA TTTTATTCAA CTGAGCTCAA
 CAAGCCTGCC
 >
 > 2101 ATGATCTATT GCTCTCATGG AGATGGACAT TGGGTCCATG
 CCCAGTGTAT
 >
 > 2151 GGATCTGGCA GAACGCACCA CCTCATCCAT CTATCAGAAG
 GAAGCAATAA
 >
 > 2201 ATATTAYTGT AACGAGCATG TGGAGATAG

FIG. 2

MAP OF BOVINE RAG-2 KNOCKOUT CONSTRUCT

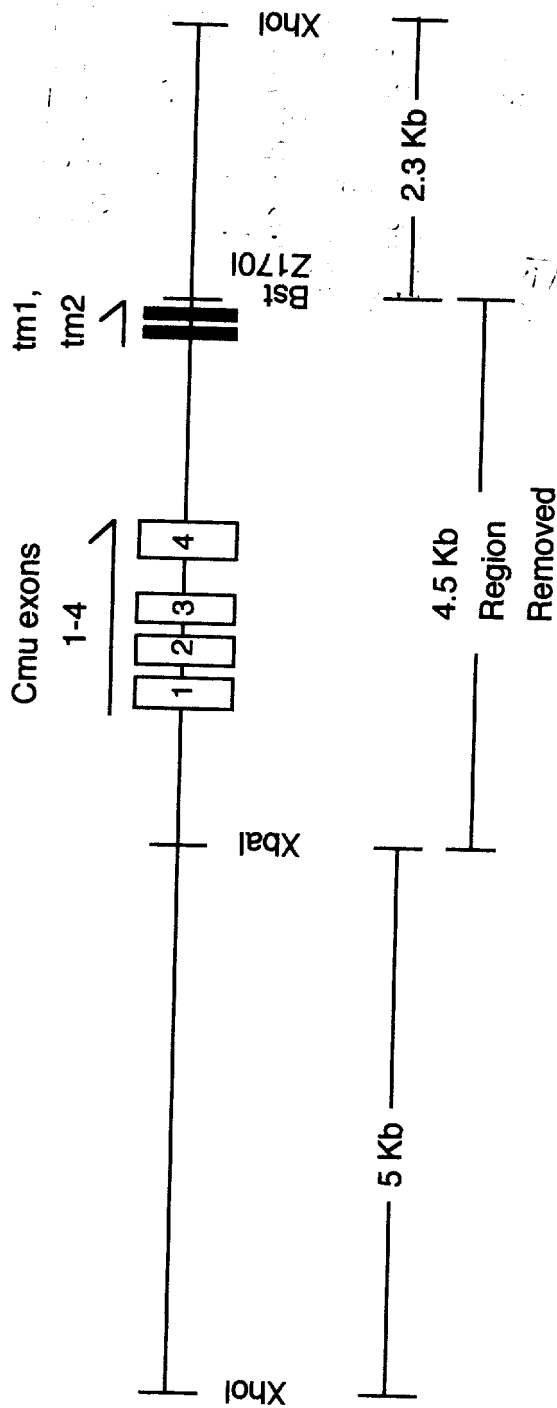


→ = TRANSCRIPTIONAL ORIENTATION

Key: Bovine 5' and 3' flanking (FL) sequences are blue; RAG-2 coding region is green & the interrupting neomycin gene is red. Note that the transcriptional orientation of the NEO gene is opposite to that of the RAG-2 gene.



FIG. 3



The 4.5 Kb region containing the exons encoding the Mu constant region and associated transmembrane domain exons, were deleted and replaced with the loxP-flanked neomycin resistance cassette (Not I fragment)

